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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,863	12/02/2003	John H. Whiton	C-2951	2790

7590

02/23/2006

M. P. Williams
210 Main Street
Manchester, CT 06040

EXAMINER

RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary	Application No. 10/725,863	Applicant(s) WHITON ET AL.	
	Examiner Mark Ruthkosky	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites the limitation "said conduits" in claim 1. There is insufficient antecedent basis for this limitation in the claim as claim 1 has been amended to remove the term "conduits."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The rejection of claims 1, 6, 7, and 8 under 35 U.S.C. 102(b) as being anticipated by Kugler et al. (US 5,622,606) has been overcome by applicant's amendment.

Claims 1-3, 5-6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Pinto (US2003/0118878.)

The instant claims are to a fuel cell inlet fuel apparatus for a fuel cell stack, comprising a fuel supply pipe; a fuel inlet manifold; and an inlet fuel distributor comprising a plurality of fuel conduits of substantially equal length and substantially equal flow cross section, each extending from said fuel supply pipe to said fuel inlet manifold, said plurality of channels formed in a plate.

Pinto (US2003/0118878) teaches an inlet gas apparatus comprising a gas supply pipe; a gas inlet manifold, and an inlet gas distributor comprising a plurality of conduits of substantially equal length and substantially equal flow cross section, each extending from said a supply pipe to an inlet manifold, said plurality of conduits selected from channels formed in a thin plate (see figures 4a and 4b, para. 91-98 and 1-4 and claims 1-32.) The apparatus has a gas supply pipe, a plurality of intermediate conduits, and inlet portions that deliver the fluid to individual cell inlet manifolds (see figs. 4a and 4b, and paragraphs 91 and 96.) The fuel may be a gas. Six channels are formed in the plate as shown in figure 4. A diffuser is noted on the surface of the apparatus [98.] The pipe and channels include many surfaces. The pipe and channels have inlets and exits.

The intended use limitations of the apparatus in a fuel cell are not given patentable weight, although it is noted that the apparatus is used to deliver gas to individual fuel cell inlets (paragraph 91.) A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. As the prior art structure is capable of performing the intended use, it meets the claim. Thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pinto (US2003/0118878), as applied above, and further in view of Kugler et al. (US 5,622,606).

The teachings of Pinto have been presented. Pinto does not teach channels that have more than one exit. Kugler et al. (US 5,622,606), however, teaches an inlet gas apparatus comprising a gas supply pipe; a gas inlet manifold, and an inlet gas distributor comprising a plurality of conduits of substantially equal length and substantially equal flow cross section. The tubes are branched in order to distribute the gas more homogeneously across a supply section. It would be obvious to one of ordinary skill in the art at the time the invention was made to include more than one exit in the channels of Pinto in order to more evenly distribute the gas from the supply system. The artisan would have found the claimed invention to be obvious in light of the teachings of the references.

Response to Arguments

Applicant's arguments filed 12/7/2005 have been fully considered but they are not persuasive with regard to the Pinto reference. Applicant argues that the channels of Pinto are not formed in a plate and that the channels are of different lengths. This is not accurate as figure 4

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shows channels formed in a plate. The channels extend from a central inlet in a manner that the channels are of substantially equal lengths along the radius of the apparatus. The office action discloses figures 4a and 4b as the embodiment of equal lengths, as noted in the rejection. The plurality of channels in Pinto constitutes an inlet distributor. The distributor apparatus is coupled to the flow field of a fuel cell which is the fuel inlet manifold of the individual fuel cells.

With regard to claim 2, the claim requires a surface and that each of the channels have an exit. The phrase, "for flowing said fuel against said surface" is an intended use phrase. As noted in the rejection, the phrase has been considered, but is not given patentable weight. However, as the channel is couple to a fuel cell inlet, the fuel will inherently flow against a surface of the inlet manifold such that it does not dissipate from the fuel cell and provides fuel flow to the fuel cell. As the arguments are not persuasive, the claims are rejected in view of Pinto.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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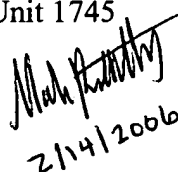
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Mark Ruthkosky
Primary Patent Examiner
Art Unit 1745



2/14/2006